

Amendments to the Claims

1. (Currently amended) A method comprising:

receiving a keepalive message from a client station;

determining a measure of network load;

based on the measure of network load, selecting a keepalive period;

reporting the selected keepalive period to [[a]] the client station in a response to the received keepalive message; and

the client station responsively sending a next keepalive message to a presence server at a time determined based on the selected keepalive period reported in the response.

2. (Original) The method of claim 1, wherein the client station is a wireless mobile station.

3. (Currently amended) The method of claim 1, wherein the determining a measure of network load comprises:

the presence server querying a controller that has access to network load information.

4. (Currently amended) A presence server in a communication network, comprising:

a first module arranged to receive keepalive messages from at least one client station;

a second module arranged to select a keepalive period based on a measure of network load; and

a third module arranged to report the selected keepalive period to the at least one client station in responses to the received keepalive messages.

5. (Original) The presence server of claim 4, wherein the presence server at fixed time intervals polls a controller to obtain network load information.

6. (Original) The presence server of claim 4, wherein the communication network is a wireless communication network.

7. (Original) The presence server of claim 4, wherein the presence server is coupled to a controller, the controller keeping track of network load information.

8. (Original) The presence server of claim 4, wherein the presence server is embedded with a controller that keeps track of network load information.

9. (Currently amended) A system comprising:
at least one client station;
a presence server;
the presence server receiving a keepalive message from the at least one client station;
the presence server determining a keepalive period based on network load and sending and an indication of the determined keepalive period to the at least one client station in a response to the keepalive message; and

the at least one client station sending subsequent keepalive signals according to the keepalive period indicated in the response.

10. (Currently amended) The system of claim 9, furthering further comprising a controller that has access to network load information.

11. (Original) The system of claim 10, wherein the controller periodically pushes network load information to the presence server.

12. (Currently amended) The communication network system of claim 9, wherein the at least one client station and the presence server communicate via [[is]] a wireless communication network.

13. (Currently amended) The communication network system of claim 9, wherein the at least one client station and the presence server communicate via [[is]] a packet-switched network.

14. (Currently amended) A method comprising:
sending a first keepalive message from a client station to a presence server;
selecting a keepalive period based on a measure of network load;
reporting the selected keepalive period to the client station in a response to the first keepalive message;

using the selected keepalive period to determine when the client station should send a next keepalive message to the presence server; and
sending the next keepalive message from the client station to the presence server.

15. (Original) The method of claim 14, wherein selecting the keepalive period based on the measure of network load comprises:

the presence server selecting the keepalive period based on the measure of network load.

16. (Currently amended) The method of claim 14, wherein [[a]] the first keepalive message comprises a Session Initial Protocol message.

17. (Original) The method of claim 14, wherein the method is used for dynamically determining keepalive periods in a wireless communication system, the wireless communication system serving one or more wireless mobile subscribers.

18. (Cancelled)

19. (Currently amended) A client station in a communication network, the client station comprising:

a receiver;

a transmitter;

a timer;

at least one processor;

data storage holding program instructions;
the program instructions being executable by the at least one processor to send a
keepalive message through the transmitter, and to receive through the receiver a response to the
keepalive message, the response containing information defining a keepalive period, the
keepalive period being selected based on network load; and

the program instructions being further executable by the at least one processor, in
response to receiving, in the response, the information defining [[a]] the keepalive period
wherein the keepalive period is selected based on network load, to:

- (i) set the timer according to the keepalive period [[;]] , and
- (ii) send a new keepalive message through the transmitter when the timer expires.

20. (Currently amended) A system for dynamically determining keepalive periods in
a wireless communication network, comprising:

at least one base station;

a presence server;

a packet-switched network;

the presence server being capable of communicating with the at least one client station
mobile subscriber through the packet-switched network;

the presence server receiving a keepalive message from the at least one mobile subscriber
through the packet-switched network; and

the presence server selecting a keepalive period for the at least one mobile subscriber
based on measures of network load, and the presence server reporting the selected keepalive

period to the at least one mobile subscriber, in a response to the received keepalive message, through the packet-switched network.

21. (Currently amended) The system of claim 20, wherein the presence server at fixed time intervals polls a controller to obtain the measures of network load.

22. (Currently amended) The system of claim 20, wherein the presence server determines the measures of network load by querying a controller that has access ~~a measure to~~ the measures of network load.

23. (Original) The system of claim 20, wherein the presence server keeps track of network bandwidth usage.

24. (Currently amended) The system of claim 20, wherein the at least one mobile subscriber, upon receiving the selected keepalive period, sends ~~the next a~~ a keepalive message at a time determined by the selected keepalive period.

25. (Currently amended) A presence server in a communication network comprising: a database, the database maintaining a list of client stations that are connected to the communication network; and

a timer;

wherein the presence server is programmed to:

receive keep alive keepalive messages from at least one client station,

select a keepalive period for the at least one client station based on a measure of network load,

report the selected keepalive period to the at least one client station in responses to the keepalive messages, and

drop the at least one client station from the database if the presence server does not receive a new keepalive message within the selected keepalive period from the at least one client station.

26. (Currently amended) A method comprising:

sending a first keepalive message from a client station to a presence server;

selecting a keepalive period based on a measure of network load;

reporting the selected keepalive period to the client station in a response to the first keepalive message;

using the selected keepalive period to determine when the client station should send a next keepalive message to the presence server; and

updating a database of the presence server based on whether the client station has sent a next keep keepalive message to the presence server within the selected keepalive period.